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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/669,371	09/25/2003	In Duk Song	2658-0305P	3363
2292 7590 04/09/2008 BIRCH STEWART KOLASCH & BIRCH PO BOX 747 FALLS CHURCH, VA 22040-0747				
EXAMINER NGUYEN, LAUREN				
ART UNIT 2871		PAPER NUMBER		
NOTIFICATION DATE 04/09/2008		DELIVERY MODE ELECTRONIC		

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

mailroom@bskb.com

Office Action Summary

Application No.

10/669,371

Applicant(s)

SONG, IN DUK

Examiner

LAUREN NGUYEN

Art Unit

2871

Period for Reply -- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 06 March 2008.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-23 is/are pending in the application.
- 4a) Of the above claim(s) 7-9, 17 and 18 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-6, 10-16, 19-23 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/S5108)
- Paper No(s)/Mail Date 11/9/2004
- 4) ☐ Interview Summary (PTO-413)
- Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

Election/Restrictions

1. Applicant's election without traverse of Species A1, including **claims 1-6 and 10-17**, in the reply filed on 03/06/2008 is acknowledged. Claims 19-23 were added.
2. During a telephone conversation with David Bilodeau on 03/20/2008 a provisional election was made to prosecute the invention of Species A1, claims 1-7, 10-16 and 19-23. Affirmation of this election must be made by applicant in replying to this Office action. Claim 17 is withdrawn from further consideration by the examiner, 37 CFR 1.142(b), as being drawn to a non-elected invention (species A2).

Priority

3. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

Information Disclosure Statement

4. The information disclosure statement (IDS) submitted was filed after the mailing date of the instant application on 11/09/2004. The submission is in compliance with the provisions of 37 CFR 1.97. Accordingly, the information disclosure statement is being considered by the examiner.

Specification

5. The title of the invention is not descriptive. A new title is required that is clearly indicative of the invention to which the claims are directed.

Claim Objections

6. **Claim 2** is objected to because of the following informalities: the term “first and a second line-on glass signal pads” is unclear. For examining purposes, it should be corrected to “first and second line-on glass signal pads”. Appropriate correction is required.

Claim Rejections - 35 USC § 102

7. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

a. A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

8. **Claims 1, 5-6 and 10-16** are rejected under 35 U.S.C. 102(b) as being anticipated by **Kim et al. (KR 10-1999-0024956)**.

9. With respect to **claim 1, Kim et al.** (figures 1 and 3-5) discloses a line-on glass liquid crystal display panel, comprising: a picture display part with a matrix of liquid crystal cells (20-30); a plurality of line-on glass type signal lines (620) located in an outer area of the picture display part for applying drive signals to drive the liquid crystal cells; and a dummy line (700) formed between the line-on glass type signal lines with at least a layer of insulating film therebetween (640).

10. With respect to **claim 5, Kim et al.** (figures 1 and 3-5) discloses the line-on glass type signal lines (620) are formed in a same layer as a gate line (621) of the picture display part.

11. With respect to **claim 6, Kim et al.** (figures 1 and 3-5) discloses the dummy line (700) is formed in a same layer as a data line (621, figure 4) of the picture display part that crosses the gate line with a gate insulating film therebetween (640).

12. With respect to **claim 10, Kim et al.** (figures 1 and 3-5) discloses the dummy line transmits a common voltage (see at least paragraph 29).
13. With respect to **claim 11, Kim et al.** (figures 1 and 3-5) discloses the dummy line transmits a ground voltage (see at least paragraph 0029).
14. With respect to **claim 12, Kim et al.** (figures 1 and 3-5) discloses a fabricating method of a line-on glass liquid crystal display panel, comprising: forming a plurality of line-on glass signal lines (620, 62') in an outer area of a picture display part; forming at least one layer of insulating film (640) to cover the line-on glass type signal lines; and forming a dummy line (700) that is located between the line-on glass signal lines on the insulating film.
15. With respect to **claim 13, Kim et al.** (figures 1 and 3-5) discloses forming a gate line (62') of the picture display part on a substrate and a gate electrode connected to the gate line; forming a gate insulating film (660) on the substrate on which the gate line and the gate electrode are formed; forming a semiconductor layer on the gate insulating film; forming a data line (621) crossing the gate line, a source electrode connected to the data line, and a drain electrode opposite to the source electrode with a designated gap therebetween (630), on the substrate on which the semiconductor is formed; forming a protective film (640) on the substrate where the data line, the source electrode and the drain electrode are formed; and forming a pixel electrode (650) connected to the drain electrode on the protective film.
16. With respect to **claim 14, Kim et al.** (figures 1 and 3-5) discloses the line-on glass signal line is formed of a same metal as a gate line (62').
17. With respect to **claim 15, Kim et al.** (figures 1 and 3-5) discloses the dummy line is formed of a same metal as the data line (700 and 621).

18. With respect to **claim 16, Kim et al.** (figures 1 and 3-5) discloses the dummy line (700) is formed between the line-on glass type signal lines (620) with the gate insulating film therebetween (640).

19. **Claims 21-22** are rejected under 35 U.S.C. 102(b) as being anticipated by **Kawaguchi (US 6,052,171)**.

20. With respect to **claim 21, Kawaguchi** (figures 1-4) discloses a line-on glass liquid crystal display panel, comprising: a picture display part (16) with a matrix of liquid crystal cells; a plurality of line-on glass type signal lines (12) located in an outer area of the picture display part of a lower substrate for applying drive signals to drive the liquid crystal cells; and a plurality of dummy lines (13) formed between gate signal lines (11, see at least column 6, lines 60-65), wherein the plurality of dummy lines comprise common voltage or ground voltage lines.

21. With respect to **claim 22, Kawaguchi** (figures 1-4) implicitly discloses the gate signal lines (11, see at least column 6, lines 60-65) are Vgl, Vcc, Vgh, GOE, GSC, and GSE
22.

17. The fabricating method according to claim 14, wherein the dummy line is formed of a same metal as a pixel electrode.

Claim Rejections - 35 USC § 103

23. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

24. **Claims 2-4** are rejected under 35 U.S.C. 103(a) as being unpatentable over **Kim et al. (KR 10-1999-0024956)** in view of **Moon et al. (US 2002/0044246)**.

25. With respect to **claims 2-4**, **Kim et al.** discloses the limitations as shown in the rejection of **claim 1** above. However, **Kim et al.** is silent regarding forming the limitations of **claims 2-4**. **Moon et al.** (in at least paragraph 0015, figure 7) teaches first and second line-on glass signal pads (143) which extend from both sides of the line-on glass type signal line; first and a second dummy pads (136, 140) that extend from both sides of the dummy line; and the first and second dummy pads are located between the first and second line-on glass type signal pads. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify the lines as taught by **Moon et al.** because such modification would improve the picture quality of LCD devices.

26. **Claims 19-20 and 23** are rejected under 35 U.S.C. 103(a) as being unpatentable over **Kawaguchi (US 6,052,171)** in view of **Official Notice**.

27. With respect to **claim 19**, **Kawaguchi** (figures 1-4) discloses line-on glass liquid crystal display panel, comprising: a picture display part (16) with a matrix of liquid crystal cells; a plurality of line-on glass type signal lines (12) located in an outer area of the picture display part of a lower substrate for applying drive signals to drive the liquid crystal cells; and a plurality of common voltage signal lines (13) for applying a common voltage signal and being formed between gate signal lines (11, see at least column 6, lines 60-65), wherein at least one of the plurality of common voltage lines applies the common voltage signal through a dot (14) to a common electrode that is formed on an entire surface of an upper substrate. However, **Kawaguchi** is silent regarding forming the silver dot. The examiner takes Official Notice that

the use of “the silver dot” was well-known in the art at the time of the invention. It would have been obvious to one of ordinary skill in the art at the time of the invention to use those elements, motivated by the desire to produce a high-quality display device. **Claim 19** is therefore unpatentable.

28. With respect to **claim 20, Kawaguchi** (figures 1-4) implicitly discloses the gate signal lines (11, see at least column 6, lines 60-65) are Vgl, Vcc, Vgh, GOE, GSC, and GSP.

29. With respect to **claim 23, Kawaguchi** (figures 1-4) discloses the common voltage line (12) applies the common voltage signal through a dot (14) to a common electrode that is formed on an entire surface of an upper substrate of the display panel part (see at least column 4, lines 34-40). However, **Kawaguchi** is silent regarding forming the silver dot. The examiner takes Official Notice that the use of “the silver dot” was well-known in the art at the time of the invention. It would have been obvious to one of ordinary skill in the art at the time of the invention to use those elements, motivated by the desire to produce a high-quality display device. **Claim 23** is therefore unpatentable.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Lauren Nguyen whose telephone number is (571) 270-1428. The examiner can normally be reached on M-F, 7:30-5:00 EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner’s supervisor, David Nelms can be reached on (571) 272-1787. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/L. N./

Examiner, Art Unit 2871

/Andrew Schechter/
Primary Examiner, Art Unit 2871